AMENDMENT TO THE CLAIMS

1. (canceled)

2. (canceled)

3. (canceled)

4. (canceled)

5. (canceled)

6. (currently amended): A method comprising steps of:

forming compensation equations for a plurality of servo tracks of a plurality of discs, each compensation equation including discrete compensation values representing repeatable runout (RRO) for one of the servo tracks of one ~~a plurality~~ of the discs; and

using the compensation equations to control heads corresponding to the discs to follow virtual tracks that are substantially concentric to an axis of rotation of the corresponding disc.

7. (currently amended): The method of claim 6, wherein the forming step comprises:

positioning a head at a fixed radial position relative to the axis of rotation of the corresponding disc;

measuring a position error signal (PES) corresponding to a difference between a head position signal and a reference signal;

setting the compensation values in accordance with the PES;

forming the compensation equation for the disc using the compensation values; and

repeating steps (a)(1) through (a)(4) for each disc.

8. (original): The method of claim 7, wherein the compensation values relate to discrete radial position differences between the position of the head and the reference track as measured at each servo track.

9. (currently amended): The method of claim 6, comprising:

measuring a reference position of each head while maintaining the heads in fixed relation to each other; ~~and~~

establishing a reference virtual track at each of the reference positions~~.~~; and

identifying each of the virtual tracks of each disc based upon their position relative to the reference position, whereby the disc drive is operable in a cylinder mode.

10. (canceled)

11. (currently amended): In an apparatus having a storage medium that includes position information that defines real tracks of the storage medium that are eccentric to an axis of rotation of the storage medium, and a transducer that is positionable relative to the storage medium, a method of operating the apparatus comprising a step of controlling a position of the transducer to follow virtual tracks that are substantially concentric to the axis of rotation of the storage medium and are eccentric to the real tracks, based upon discrete compensation values provided for each real track.

12. (previously presented): The method of claim 11 including reading data from the virtual tracks with the transducer.

13. (previously presented): The method of claim 11 including a step of writing data to the virtual tracks with the transducer.

14. (currently amended): The method of claim 11, wherein the controlling step includes:

removing a repeatable runout (RRO) component from a position error signal (PES) using the discrete compensation values, the RRO component representing the eccentricity between the real data tracks and the axis of rotation of the storage medium;

generating a control signal in response to the PES; and

controlling the position of the transducer in response to the control signal.

15. (currently amended): A disc drive or spin-stand comprising:

a disc having servo tracks containing position information that define data tracks that are eccentric to an axis of rotation of the disc;

a transducer configured to produce an output signal in response to the servo tracks; and

an element having an output lead and a control signal provided on the output lead, the control signal controlling a position of the transducer such that the transducer follows virtual tracks that are eccentric to the data tracks and substantially concentric to the axis of rotation of the disc based upon discrete compensation values provided for each servo track.

16. (previously presented): The method of claim 6, wherein the plurality of discs are contained in a disc drive.

17. (previously presented): The method of claim 6, including generating compensation signals based upon the compensation equations.

18. (previously presented): The method of claim 17, including selectively injecting the compensation signals into a servo control loop to cancel the RRO of the discs and cause corresponding heads to follow virtual tracks that are concentric to the axis of rotation of the discs.

19. (currently amended): A device comprising:

a plurality of discs each having servo tracks that define data tracks that are eccentric to an axis of rotation;

a plurality of transducers each configured to produce an output signal in response to the servo tracks of a corresponding disc;

a plurality of compensation equations for the servo tracks of the discs, each compensation equation including discrete compensation values representing repeatable runout (RRO) of one of the servo tracks of one of the discs caused by eccentricity between the servo tracks and an axis of rotation of the disc; and

a servo control loop configured to control a position of each transducer to follow virtual tracks that are substantially concentric to the axis of rotation of the corresponding disc using the corresponding compensation equation.

20. (previously presented): The device of claim 19, wherein the device forms a disc drive.

21. (previously presented): The device of claim 19, wherein the device forms a spin stand.

22. (new): A servo control loop for controlling a position of a head over a disc in response to a reference signal, the disc having pre-written servo tracks and an axis of rotation, the servo control loop comprising:

a servo controller having a control signal that is generated in response to a position error signal (PES);

an actuator mechanism coupled to the head and adapted to position the head in response to the control signal;

a transducer carried by the head having an output signal that is produced in response to the pre-written servo tracks;

a demodulator having a head position signal that is produced in response to the output signal, wherein the head position signal and the reference signal are combined to form the PES; and

compensation circuitry having a compensation signal that is generated based upon discrete compensation values that represent repeatable runout (RRO) caused by eccentricity between the pre-written servo tracks and the axis of rotation of the disc at each of the servo tracks, wherein the compensation signal provides compensation for the RRO.

23. (new): The servo control loop of claim 1, wherein the compensation signal is subtracted from a signal selected from a group consisting of the reference signal, the control signal, and the output signal.

24. (new): The servo control loop of claim 1, wherein the compensation signal is added to the head position signal.

25. (new): A method of operating a disc drive comprising:

establishing virtual tracks for a plurality of discs that are eccentric to servo tracks written to the discs;

establishing a reference position for a plurality of heads, each of which correspond to one disc surface while maintaining the heads in fixed relation to each other; and

identifying each of the virtual tracks of each disc based upon their position relative to the reference position, whereby the disc drive is operable in a cylinder mode.

26. (new): The method of claim 25, wherein the establishing virtual tracks includes:

forming compensation equations representing repeatable runout (RRO) for the plurality of discs, wherein each compensation equation includes discrete compensation values which represent the RRO at a plurality of the servo tracks of each disc; and

using the compensation equations to establish virtual tracks that are substantially concentric to an axis of rotation of the corresponding disc.